=> d his

(FILE 'HOME' ENTERED AT 20:13:43 ON 21 MAR 2003)
FILE 'CA' ENTERED AT 20:13:53 ON 21 MAR 2003
L1 83190 S CATALY?(5A)(DETECT? OR DETERMIN? OR DIFFERENTIA? OR COMPAR? OR ASSAY? OR ANALY? OR TEST? OR MEASUR? OR MONITOR? OR INVESTIGAT? OR SCREEN? OR DISCOVER? OR EVALUAT? OR SENSE# OR SENSING OR PROBE# OR PROBING OR EXAMIN? OR ASSES? OR QUANTIF? OR QUANTITAT?)
L2 124 S L1 AND(PLURAL? OR TWO OR THREE OR MULTIPLE)(2A)(DETECTOR OR SENSOR OR(ANALY? OR DETECT? OR MEASUR? OR SENSING)(2A)(PROCESS OR METHOD OR TECHNIQUE))
L3 172 S L1 AND(THERMOCOUPLE OR TEMPERATURE(3A)(SENSOR OR DETECTOR) AND MASS SPECTRO?)
L4 3 S L1 AND(THERMOCOUPLE OR TEMPERATURE(3A)(SENSOR OR DETECTOR)) AND MASS SPECTRO?
L5 294 S L2-4
L6 246 S L5 NOT PY>2000
L7 245 S L6 NOT(CVD OR VAPOR DEPOSIT? OR EPITAX?)
L8 228 S L7 NOT(WASTE OR POWDER ELECTRODE OR (MONOXIDE OR DIOXIDE)(1A)(SENSOR OR DETECTOR) OR ELECTROPHOR? OR CONTINUOUS ADDITION OR ATOMIC HYDROGEN OR YEAST)
L9 17 S L7 NOT L8
L10 1 S L9 AND CLAUS
L11 189 S L8 NOT(AMPEROMET? OR HYDRATION OR COAL OR CALORIM? OR BIOSENS? OR THIOSEM? OR ENZYM? OR TITRAT?)
L12 39 S L8 NOT L11
L13 4 S L12 AND (DISTRIBUTIVE OR PROFILE OR (GREATER OR ORDINARY)/TI)
L14 157 S L11 NOT(CURE OR SEC OR RADIO? OR NUCLEAR OR COMBUST? GAS OR KIESSEL? OR LAMBDA OR AIR FUEL)
L15 146 S L14 NOT(SUB PG OR METHANE DETECTOR OR PLATINUM IV OR OSCILLAT? OR CONTACT REACTOR OR COSMIC OR GALAX? OR TENSILE OR RAIN?)
L16 112 S L15 NOT(FREE RADICAL OR WIRE OR FLAME OR EXHAUST GAS OR THERMOELECT?)
L17 117 S L10,L13,L16

=> d l17 1-117 bib,ab

L17 ANSWER 29 OF 117 CA COPYRIGHT 2003 ACS
AN 119:98622 CA
TI Temperature **monitoring** of a fixed-bed **catalytic** reactor
IN Pelensky, Martha T.
PA Mobil Oil Corp., USA
SO U.S., 6 pp.
PI US 5192132 A 19930309 US 1991-808794 19911212
PRAI US 1991-808794 19911212
AB A thermowell for a fixed-bed reactor comprises a vertical spine portion and multiple spider portions extending from the spine and spaced along the spine. At least one **thermocouple** is located in each arm of the spider portions with **thermocouple** leads extending upwardly through the spine to a monitor outside of the reactor. The thermowell is constructed in the reactor while loading the catalyst by positioning the spine in the reactor and then fabricating a spider portion at the lowest level. Catalyst is added to the reactor to cover the spider portion at that level. At each successive level, the steps are repeated. The reactor is large enough to accommodate personnel during catalyst loading and has a manway for access to the reactor during set-up.

L17 ANSWER 33 OF 117 CA COPYRIGHT 2003 ACS

AN 117:179143 CA
TI Hydrodesulfurization **catalysts** prepared by **two methods analyzed** by transmission electron microscopy
AU Cruz-Reyes, J.; Avalos-Borja, M.; Farias, M. H.; Fuentes, S.
CS Fac. Cienc. Quim., UABC, Tijuana, 22100, Mex.
SO Journal of Catalysis (1992), 137(1), 232-42
AB Samples of molybdenum sulfide, cobalt sulfide, and mixts. in at. ratios (r = Co/Co + Mo) of 0.0, 0.3, 0.5, 0.7, and 1.0 were prepd. by two different methods, homogeneous sulfide pptn. (HSP) and impregnated thiosalt decompn. (ITD). Samples were obsd. by high-resoln. electron microscopy using imaging and diffraction modes. Both prepn. methods presented the rag structure typical of MoS2-2H with some structural differences between them. The av. no. of layers in MoS2 crystals was about the same in both prepn. methods, while the av. length of the MoS2 crystallites obtained by HSP was larger than that of those obtained by ITD. The particle size was smaller for ITD samples. The presence of Co did not greatly modify the no. of layers of the MoS2-2H stacks in mixed samples. An increase in the intracrystallite disorder was obsd.

L17 ANSWER 45 OF 117 CA COPYRIGHT 2003 ACS
AN 107:186806 CA
TI **Greater** than the sum of its parts: a new instrument
AU Fawcett, Tim
CS Anal. Lab., Dow Chem. Co., Midland, MI, 48674, USA
SO CHEMTECH (1987), 17(9), 564-9
AB **Three** powerful **anal. techniques** differential scanning calorimetry (DSC), x-ray diffraction (XRD), and mass spectrometry (MS) were combined so that one can completely characterize materials as they are heated in controlled atmospheres. The XRD capability tells, continuously, about the structure of the solid phase in the reaction chamber. The MS monitors the volatiles. And the DSC tells about reaction and phase-change thermochem. The set-up was used to study the melting behavior of polymers, the mechanisms of redn. in copper catalysts, and the thermal processing of pharmaceuticals. The combined instrument has several advantages over analyses where the 3 techniques are run sep. The simultaneous anal. allows the analyst to assign specific structural or chem. process data directly to obsd. thermal events. Because the same environment and sample are used for all 3 analyses, instrumental and sample prepn. conditions and errors assocd. with them are kept const.

TPI. C 3 5

L17 ANSWER 67 OF 117 CA COPYRIGHT 2003 ACS
AN 85:110671 CA
TI Exclusion chromatography with **multiple detectors** for following compositional changes of petroleum residuals during desulfurization
AU Albaugh, E. W.; Query, R. C.
CS Gulf Res. and Dev. Co., Pittsburgh, PA, USA
SO Analytical Chemistry (1976), 48(11), 1579-82
AB The changes in size, mol. wt. S distribution, and aromaticity during **catalytic** desulfurization were **examd.** A method for continuously monitoring the S content of chromatog. effluents is also given.

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STN INTERNATIONAL LOGOFF AT 21:17:11 ON 21 MAR 2003